

REMARKS

The application has been amended and is believed to be in condition for allowance.

The indication that claim 11 is allowed is acknowledged with thanks. It is also gratefully acknowledged that claims 5 and 9 would be allowable if rewritten into independent form.

The Official Action rejected claims 1-4, 6-8, and 10 under 35 USC 102(b) as being anticipated by PUTHUFF (U.S. Patent 3,604,947; hereinafter PUTHUFF).

As to claims 1 and 7, the Official Action relies on PUTHUFF's Figure 5 as teaching an electric device and method for detecting the presence of a signal  $f(t)$  of a certain frequency in a line connection 11,18 comprising at least three energy-storing components 12 connected in parallel to a line connection, switching means 14 for making a connection selectively from each energy storing component to a reference means 20 for controlling the switching means at a predetermined frequency, and means at the output for measuring a quantity comparable to the energy stored from each energy storing component 22.

The Official Action further states that PUTHUFF teaches the Output of Figure 5 teaches means for measuring a certain quantity comparable to the energy stored from each energy-storing component. The Official Action states that element 22 is simply the ring counter that selects each of the capacitances for

output, referring to column 4, line 67 to column 5 line 7 of the reference.

Applicant respectfully disagrees.

As to claim 1, it is respectfully submitted that PUTHUFF does not teach means for measuring a certain quantity comparable to the energy stored from each energy-storing component.

On the contrary, PUTHUFF teaches only one of a filter or a phase difference indicator, depending on the position of switch 23 in either of positions A or B (Figure 5; column 4, lines 32-44; column 8 lines 38-46). Neither of these two modes of the PUTHUFF circuit teach the invention as claimed in claim 1.

In the filter mode, PUTHUFF teaches using each energy-storing component 12, 12', 12'', 12''' as a band-pass filter to filter a waveform for a certain bandwidth, but makes no teaching of measuring from each of them (column 5, lines 10-72; Figures 5, 7).

Alternatively, in the phase difference mode, PUTHUFF discloses using only one energy-storing component 12 and measuring from this single component 12 only, and not from each of the other energy-storing components 12', 12'', 12'''.

Referring to Figures 5, 15 and 16, it is firstly noted that a black dot appears at every crossing where there is contact. It is evident from the presence or absence of black dots

that the line leading from gate 15 of FET 26 is not connected to any of the FETs 14', 14'', or 14''', but is connected to FET 14.

When switch 23 is in the A position, FETs 14 and 26 are connected and the output voltage at 25 will be proportional to the phase difference between the impressed signals 67 and 68 (column 8, lines 24-43; Figures 5, 15, 16). However, only one branch of PUTHUFF's N-path filter is used. As illustrated by Figures 15-16 and Figure 5, the phase difference measurement involves only one capacitor 12 (not any of 12', 12'', and 12''') and only one FET 14 (and not any of 14', 14'', and 14''') coupled to output FET 26 and output connection 25, the latter appearing as "Output 2" in Figure 5 and as merely "Output" in Figure 16.

With switch 23 in the A position, the poles of Output 1 are short-circuited and the flip-flop circuitry 22 is disabled such that only one branch of the N-path filter circuitry, capacitor 12, FET 14, and opamp 21, is used in association with the output stage FET 26, without producing any cyclical switching pulses to the gate of FET 14 (Figures 5, 15-16). As stated above, Output 2 in this configuration can only indicate a quantity comparable to the energy stored in one capacitor 12 (Figures 5, 15-16). Therefore, this configuration does not teach making a connection selectively from each energy-storing component to said reference, as required by claim 1.

Alternatively, with switch 23 in the B position, PUTHUFF's flip-flop circuitry 22 is used to cyclically give

switching inputs to the filter branches, and the output signal is obtained at Output 1 (column 4, lines 74-75). In this configuration, Output 2 at element 25 is not used for anything, and the circuit does not teach a means for measuring, as recited by claim 1.

It is further noted that it is not possible to combine PUTHUFF's filter configuration and phase difference indicator configuration, because the setting of switch 23 to one of either A or B necessarily makes these configurations exclusive alternatives to each other.

For all the reasons stated above, it is respectfully submitted that PUTHUFF does not teach the features recited by claim 1, and that claim 1 and claims depending therefrom are patentable. Reconsideration and withdrawal of the rejection are respectfully requested.

It is also respectfully submitted, as to claim 7, that claim 7 and claims depending therefrom, as also patentable for the same reasons stated above as to claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

From the foregoing, it will be apparent that applicants have fully responded to the March 18, 2008 Official Action and that the claims as presented are patentable. In view of this, applicants respectfully request reconsideration of the claims, as presented, and their early passage to issue.

In order to expedite the prosecution of this case, it is requested that the Examiner telephone the attorney for applicants at the number set forth below if the Examiner is of the opinion that further discussion of this case would be helpful.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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